

# Owners Manual

TEC ELECTRONIC CASH REGISTER

## MA-215-10 SERIES



**TEC** TOKYO ELECTRIC CO., LTD.



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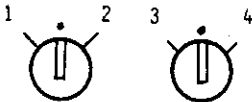
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**WARNING**

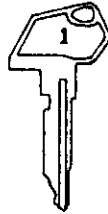
This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

## CLERK LOCKS

These locks are used to identify which clerk or cashier is operating the register.



### Clerk Keys (1, 2, 3, 4)



Each cashier should keep his/her clerk key. The register will not operate in any position of the Mode Lock unless one of these keys is inserted and set to the corresponding position on the Clerk Locks. Each of the keys may be inserted and pulled out in the neutral position marked with "." (point).

### CLERK KEYS (PUSH-ON STYLE)



These keys are alternative option with the CLERK LOCKS described above. Each cashier should be assigned with his/her Clerk Key (1 to 4). Unless one of these keys are pushed down, no operation will be accepted on the register.



## TO OUR CUSTOMERS

Thank you for choosing a TEC electronic cash register MA-215-10 series. This instruction manual provides a description of the functions and handling of this register and should be read carefully to obtain maximum performance. Since every consideration has been given to safety, there is no danger of damaging the machine by incorrect operation.

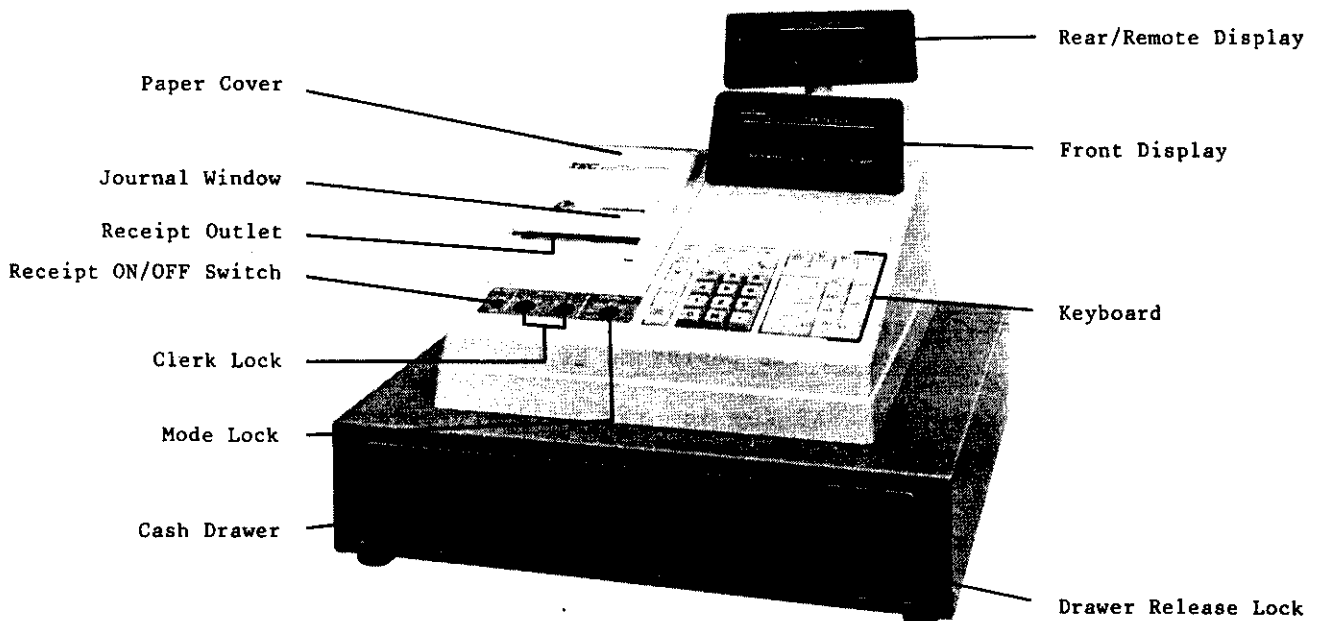
Please refer to this manual whenever you have any doubts concerning the machine. This machine has been manufactured under strict quality control and should give you full satisfaction. However, if the machine is damaged during transit, or there are any unclear points in this manual, please contact your local TEC representative.

- The specifications described in this manual may be modified by TEC, if necessary.
- Be sure to keep this manual for future reference.

## PRECAUTIONS

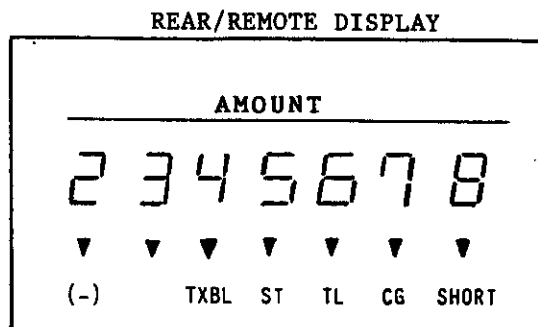
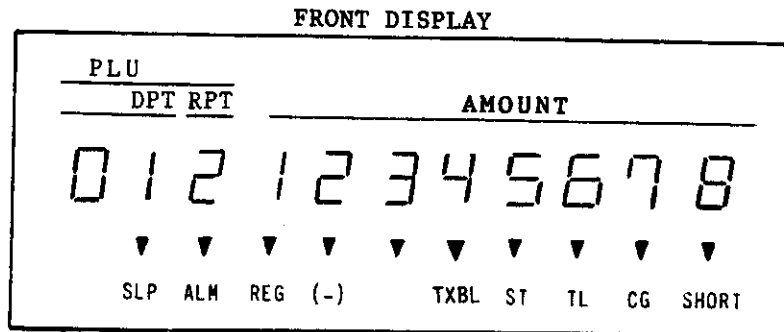
1. The keys on the keyboard work with a light touch. Avoid pressing the keys too hard.
2. Avoid handling the machine with wet hands.
3. Do not apply thinner or other volatile oils to the cabinet or other plastic parts. If dirty, wipe off with a piece of cloth soaked in neutral detergent and squeezed tightly.

## APPEARANCE AND NOMENCLATURE



## DISPLAY

The Operator's Display (front display) is located at the top of the register just above the keyboard. The Customer's Display may be used as Rear Display if it is kept in the receptacle or used as Remote Display if it is stretched up and turned to the required direction. The display has two types of indications -- numeric display and message descriptors.



### NUMERIC DISPLAY

- AMOUNT (8 digits): Displays the numeric data, such as amount, quantity, etc.
- RPT (1 digit): Displays the repeat count of a Department or PLU item. The count is indicated from the second entry on, and only the first digit will be displayed even if the count exceeds nine.
- DPT (2 digits): Displays the code which represents each Department Key
- PLU (3 digits): Displays the PLU code when a PLU item is entered.

### MESSAGE DESCRIPTORS (TRI-MARKS to appear)

- ▼  
SLP: Lights up when a validation slip has been properly inserted to allow validation.
- ▼  
ALM: Lights up to indicate that the last operation or numeric entry has resulted in an error. To clear the error condition, depress the [C] key.
- ▼  
REG: Lights up when sale items have been entered.



- ▼  
 (-): Lights up when the [RTN MDSE], [-](Amount Discount), [%-], or [ITEM CORR] key has been operated.  
 It also light up when the [ST] or one of the media total keys have been depressed and the displayed amount is negative.
- ▼  
 ST: Lights up when the sub-total amount is displayed after the [ST] key has been depressed.
- ▼  
 TL: Lights up on a finalizing operation with the total amount displayed when a sale is finalized without any amount tendered.
- ▼  
 CG: When an amount tendering operation has been performed, this tri-mark appears with the change due displayed.
- ▼  
 SHORT: Lights up when the amount tendered is less than the sale total with the shortage amount displayed.
- ▼  
 TXBL: Lights up when a txable item is entered or [TXBL TL] key is depressed.

## TIME DISPLAY

When the Mode Lock is turned to the "REG" position from any other position, the current time is automatically displayed in the AMOUNT portion. The displayed time will disappear on changing the mode to another, turning the power from OFF to ON, or starting any key-in operations on the keyboard.

### TIME DISPLAY FORMAT

ex.) 8:05 a.m.

8-05

1:24 p.m. (13:24)

13-24

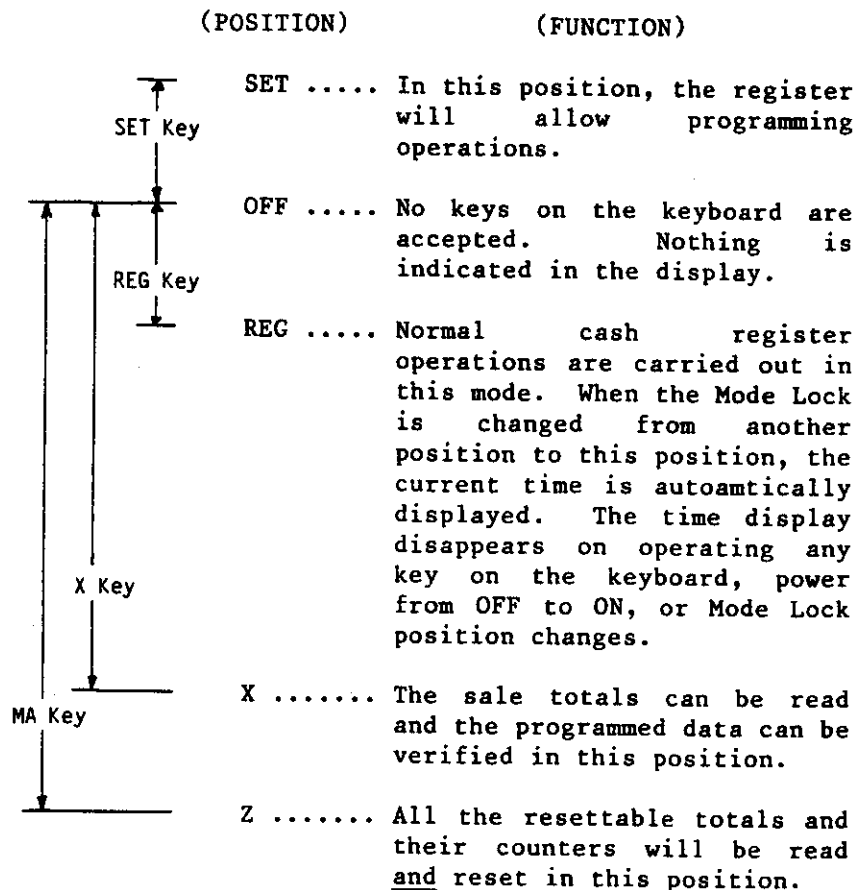
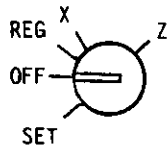
## KEYBOARD LAYOUT

The following is the Standard Keyboard layout for the MA-215-10 series. Since this series is designed to be capable of programming many of the keys in the most desired location on the keyboard, please contact your TEC representative if any key is be changed its location with another.

#/NS	VALI DATE	RF	JF	LC OPEN	DOLL DISC	%-	%+
RTN MDSE	C		TX/M		1	R/A	PO
@/ FOR	7	8	9		2	ST	
PLU	4	5	6		3	Chg	
	1	2	3		4	CHK TEND	
ITEM CORR	0	00	.		5	AT/TL	

# MODE LOCK AND MODE SELECTOR KEYS

## MODE LOCK



## Mode Selector Keys



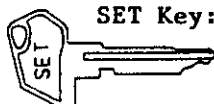
**REG Key:** The REG Key is used by the cashier who operates the register. This key can access the positions of OFF and REG.



**X Key:** The X Key is used by the store manager or the cashier authorized to read the sales totals or in-drawer totals during the day by the store manager. This key can access the positions of OFF, REG, and X.



**MA Key:** The MA key is used by the store manager who will daily supervise the collection of money and the print out of transactions recorded by the register. This key can access the positions of OFF, REG, X, and Z.



**SET Key:** The SET Key is used by the programmer. This key can access the positions of OFF and SET.

The keys may be inserted or pulled out at the "OFF" or "REG" position.

DOLL  
DISC

#### DOLLAR DISCOUNT KEY ([DOLL DISC])

This key is used to subtract an amount from the sale total such as a discounting a sale. This key cannot normally be used outside a sale. Neither can an amount exceeding sale total normally be entered. However, when the "Credit Balance" option has been selected, this key can be used inside or outside a sale and over-subtraction of the sale is allowed.

This key can be programmed with taxable or non-taxable status. When the tax status of this key must be reversed, depress [TX/M] (or [TX1/M] and/or [TX2/M] in a dual-tax area) before this key is depressed.

To operate, enter the discount amount on the numeric keyboard, and then depress this key.

%+

#### PERCENT CHARGE KEY ([%+])

This key is used to add a percent rate to a sale. If the preset rate is to be added, depress the [%+] key without a prior numeric entry. If a rate different from the preset one is required, enter the desired rate on the numeric keyboard and then depress the [%+] key. The manual rate will take priority.

To operate, depress the [%+] key either immediately after a department or PLU entry if only that item requires the percent addition, or after the [ST] key has been depressed if required on the total bill. The percent rate and the amount are printed and added to the sale total.

The percent rate may be within the range from 0.01 to 99.99%. The fraction resulted from the percent calculation is usually programmed to be rounded off. However, it can be programmed to be rounded up or discarded.

Usually, [%+] key may operate only once after obtaining a sub-total. However, it can be programmed to allow any number of times as required.

## FUNCTION OF EACH KEY



### RECEIPT ON/OFF SWITCH

This switch has two positions available, 'OFF' and 'ON' positions. When in the 'OFF', no receipt is issued from the register and sales are printed on the audit roll only. When the switch is slid to the 'ON' position, sales are printed on both receipt roll and journal roll, then a receipt is issued which is automatically cut off and then given to the customer.

Alternating the switch position during a sale will not result in an error. In this case, the position set at the starting will rule whether a receipt is issued or not. When a reset (Z) report is taken, however, the data will be printed also on the receipt roll regardless of the switch position.



### VALIDATION KEY ([VALIDATE])

This key is used to print a validation slip.

To operate, insert a slip into the validation slot after registering the required item, and depress the [VALIDATE] key. The item and the amount will be printed on the slip.

The system option provides program selections as to single- or multi-validation.



### RECEIPT FEED KEY ([RF])

This key is used to advance the receipt roll. It is operated by depressing the key and holding it in that position until the paper has advanced to the required position.

This key can be operated in any position of the Mode Lock except the "OFF" position.



### JOURNAL FEED KEY ([JF])

This key is used to advance the audit roll in the same fashion as the [RF] key. This key is useful is the cashier, due perhaps to an interruption whilst ringing up a sale, is unsure which items have already been entered. By using this key, the cashier can see which figures have actually been printed.

The [RF] and [JF] keys can not be operated simultaneously.

#/NS

#### NON-ADD NUMBER PRINT/NO-SALES KEY ([#/NS])

This is a dual-function key.

##### NON-ADD NUMBER PRINT FUNCTION

When the Mode Lock is in the REG position and a number is entered before depressing this key, this key functions as non-adding number (such as Customer No., Credit Card No., etc.) key.

##### NO-SALE FUNCTION

When the Mode Lock is in the REG position, and the key is simply depressed without any prior numeric entry, this key functions as no-sale key.

This key is also functions to read the Cash-in-drawer Total memory when the key is simply depressed while the Mode Lock is in the "X" position.

PLU

#### PLU (Price-Look-Up) KEY ([PLU])

This key is used to enter a PLU that is linked to a department. Each PLU is programmed with its code (1 to 999) and preset price.

To operate, enter the PLU code and then depress the [PLU] key. The preset price is automatically read and entered into the department to which the PLU is linked. To repeat the same PLU price, depress the [PLU] key consecutively after the above operation.

As for quantity extension involving PLUs, refer to the [Q/AMT] description on page 8. Also refer to the [RTN MDSE] key description as to return entry through a PLU.

If a PLU's link Department Key is programmed as a Single-item Key, an entry through that PLU also functions as the single-item process. That is, that PLU can only be registered outside a sale and the sale will immediately be finalized as cash on the depression of the [PLU] key without operating a media key such as [AT/TL].

ITEM  
CORR

#### ITEM CORRECT KEY ([ITEM CORR])

This key is used to delete the last item within a transaction. Depressing this key once will remove the last line item from the bill, printing a line through the item on the receipt and journal.

The item-correct function is effective even when a numeric entry and a [C] key depression are already performed between the item-to-be-corrected and the [ITEM CORR] key depression. However, if any other key-in operation including an error comes inbetween, the item correct will not function.

The [ITEM CORR] key may function to delete the last item entered through a department, a PLU, the [%-], [%+], [DOLL DISC], [R/A], or [PO] keys. But a returned department or PLU item entered with the [RTN MDSE] key cannot be item-corrected.

**%-**

**PERCENT DISCOUNT KEY ([%-])**

This key operates in the same fashion as the [%+] key except that operation will subtract from instead of adding to a sale.

**RTN  
MDSE**

**RETURNED MERCHANDISE KEY ([RTN MDSE])**

This key is used to make a subtracting entry for a returned item. This key is also used to invalidate an item entered before the last entry within a sale, in which case the [ITEM CORR] key cannot invalidate the designated item.

To operate, depress this key before or after the amount entry, and then depress the department key from which the amount is subtracted. This key may be operated during a PLU item entry sequence (if before depressing the [PLU] key) to process the returned amount into the PLU memory.

**@/  
FOR**

**AT-FOR (QUANTITY EXTENSION AND SPLIT-PACKAGE PRICING) KEY [@/FOR]**

This key is used to multiply a department or PLU item entry by a quantity (Multiplication Function). This key is also used to auto-calculate and enter a split-package price (for example, the customer wants only two of five tomatoes in one package) (Split Price Function).

The basic order of multiplication is:

[QUANTITY] → [@/FOR] → [UNIT PRICE]

As for details of multiplication and split pricing for various cases, refer to the "REGISTERING PROCEDURE FOR SALES" section.

In multiplications, the QUANTITY can be of maximum of 3 integral digits. The price can be of maximum 6 digits. The product must not exceed 7 digits.

**LC  
OPEN**

**LISTING CAPACITY OPEN KEY ([LC OPEN])**

This key is used to release the listing capacity preset on each Department key temporarily. To operate, depress this key before depressing the department key (either before or after the numeric entry).

By depressing the [LC OPEN] key, the listing capacity will be released to allow a numeric entry with two further digits. Repeat operations will be possible on a department key even when the [LC OPEN] key is depressed before the department key.

1
2
3
4
5

## DEPARTMENT KEYS ([DEPT])

These are department keys through which sale items are registered. To operate, enter the amount of the item and depress the appropriate department key. A consecutive depression of the same department key will repeat the same amount entry, which can be repeated as many times as required. The sale is not finalized after a department entry until a finalizing key ([AT/TL], etc.) is operated.

The maximum digits for a department entry is limited by the programmed listing capacity. If no specific listing capacity is set, a maximum of 8-digit amount can be entered.

Refer to the [@/FOR] description on page 8, as to QUANTITY EXTENSION using department keys.

## Single-item Department Keys

A Single-item Department Key is used to quicken a single cash sale item entry process, instead of depressing an ordinary itemized department key and [AT/TL] key. On depressing this key, the sale is finalized and a receipt is issued. Any number of the department keys installed on the keyboard may be programmed as Single-item Department Keys.

R/A
-----

## RECEIVED ON ACCOUNT KEY ([R/A])

A received-on-account transaction is used to identify money which is in the drawer but not business. The amount entered is thus included in the "Cash-in-drawer" total but not in the sales totals.

To operate, enter an amount of payment and then depress the [R/A] key. Repeat this operation if multiple payments are entered at a time. The payments thus entered may be finalized by the [AT/TL] (for cash payments) or [CHK TEND] (for cheque payments). The [Chg] key may also function to finalize payments received on account if not prohibited in program option. The above operation can only be done when the register is outside a sale.

The [ITEM CORR] key is effective to delete a payment just recorded with a depression of [R/A] key, if before finalized by a media key.

PO
----

## PAID OUT KEY ([PO])

A paid-out transaction is used when an amount of money is removed from the cash drawer without relating to a sale. When the [PO] key is used, the amount entered is subtracted from the Cash-in drawer Total but does not affect the sales totals.

To operate, enter an amount taken from the cash drawer and depress the [PO] key while the register is in an out-of-sale condition. This operation may be carried out as many times as required if multiple paid-out items are registered in one transaction. The paid out amounts recorded are finalized by the [AT/TL] key only.

The [ITEM CORR] key is effective to delete a payment just recorded with a depression of the [PO] key, if before finalized by the [AT/TL] key.

C
---

#### CLEAR KEY ([C])

This key is used to correct a numeric entry error if prior to depressing any other function key, or to correct any error condition and cancel an alarm buzzer.

If this key is depressed before depressing the Department Key or [PLU] in a quantity extension sequence, all of the quantity entry, the [X] key entry, and the unit price entry are cleared at a time.

If the [C] key is depressed after a sub-total is obtained, the sub-total is then displayed.

The [C] key may be operated regardless of Mode Lock positions except "OFF".

TX1/M
-------

TX2/M
-------

TX/M
------

#### TAX MODIFIER KEYS ([TX1/M], [TX2/M] ..... for a dual-tax area) ([TX/M] ..... for a single tax area)

These keys are used to modify taxable or non-taxable departments, PLUs, [-], [%-], or [%+] items to its reverse status.  
for dual-tax areas, two keys are provided ... [TX1/M] and [TX2/M] ... in place of the [TX/M] key for single-tax areas. The two tax modifier keys will function independently each with its own tax table preprogrammed for taxable items.

To operate, depress the Tax Modifier key(s) prior to depressing any of the above mentioned keys.

7	8	9
4	5	6
1	2	3
0	00	.

#### NUMERIC KEYS ([\_])

These are used to enter numeric values such as amount, quantity, or code number.

Depressing the [00] key once is the same as depressing the [0] key twice consecutively.

The [.] key is used to enter the decimal point of a manual percent rate containing decimal portion. For example, to enter 0.5%, index 0 → [.] → 5, or [.] → 5.

The maximum listing capacity for sale item amount through a department or PLU is 8 digits. If a listing capacity is programmed for a department, any amount entry exceeding the limit digit will result in an error.



### 3. AMOUNT TENDER / TOTAL KEY

If so programmed, this key will function as TENDER KEY (as described in 1 above) when any prior amount is entered, and will function as TOTAL KEY (as described in 2 above) when depressed without an amount entry.

CHK TEND
-------------

#### CHECK TENDER KEY ([CKH TEND])

This key is used to cash a check when the register is outside a sale, or to finalize a sale as check payment.

#### CHECK CASHING

When the register is outside a sale, enter the check amount and depress this key. A receipt is issued and the drawer is opened to enable exchange.

#### FINALIZING AS CHECK PAYMENT

For finalizing a sale, enter the amount of the check tender by the customer and depress this key. If the amount received is larger than the sale total, the receipt is issued with the change due printed and displayed. Then the change is given to the customer in cash. If the amount received is smaller than the sale total, the shortage is displayed, and the customer may pay the additional amount in cash to finalize the sale by depressing the [AT/TL] key.

A total of negative balance cannot be finalized by the [CHK TEND] key.

Chg
-----

#### CHARGE TOTAL KEY ([Chg])

This key may be used to finalize a sale paid by non-cash media such as credit cards. Thus this key is used as alternative method of payment for media other than cash and cheque. To operate, depress the [Chg] key without a prior amount entry, instead of [AT/TL], to obtain the total and finalize the sale.

A total of negative balance can be finalized by the [Chg] key.

ST

#### SUB-TOTAL KEY ([ST])

This key is used to obtain the sub-total amount during a sale. When this key is depressed after all the items have been rung up, the sub-total of the sale is printed and displayed.

If the [ST] key is depressed more than once consecutively, the first depression only will print and display the subtotal; further depressions will only display but not print the sub-total amount.

The system option provides the selection not to print but only display the sub-total even on the first depression of the [ST] key.

The ST key taxable total display option allows taxable total to be displayed when the ST key is pressed.

Mandatory depression of this key prior to finalizing is a programmable option.

AT/TL

#### AMOUNT TENDER / CASH TOTAL KEY ([AT/TL])

This key is used to finalize a cash sale.

This key can be programmed to be used as one of the following three types of keys:

##### 1. AMOUNT TENDER KEY

If so programmed, this key requires a tendered cash amount entry prior to depressing this key. The tax due is printed with the "TX" symbol, the sale total with the "TL" symbol (if [ST] has not been depressed priorly), the cash tendered amount with the "AT" symbol, and the change due with the "CG" symbol on separate lines.

When the tendered amount is less than the sale total, all the printing sequence above will be the same except that the balance due is displayed (not printed) instead of the change due. In this case, the sale is not yet finalized and another cash tendering must be done, or use other media keys ([CHK TEND] and/or [Chg]) if the balance due is processed as a sale in that media.

When the sale total is negative, as in some cases with returned merchandise entries, the [AT/TL] key must be depressed without a prior amount entry, just as in the case of "2. TOTAL KEY" below.

##### 2. TOTAL KEY

If so programmed, this key is depressed without a prior amount entry for sale finalization. The tax due is printed with the "TX" symbol and the sale total is printed with the "CA" symbol on separate lines.

When the sale total is negative, the sale total is printed with the "-" as well as the "CA" symbol. In this case, the cashier must refund the amount in cash to the customer.

TAX

#### MANUAL TAX KEY ([TAX])

This key is used to enter an irregular tax amount that cannot be calculated on the basis of the programmed tax table, and to add it to the sale total.

To operate, enter the desired amount of tax, and then depress the [TAX] key. The tax amount entered is then printed. This tax amount is processed into the TAX 2 memory. Therefore, the tax amount automatically calculated and printed at finalizing the sale (i.e., TAX 1) does not include a manual-entered tax, while the entire sale total printed on the receipt last line does include the manual-entered tax also.

This key is also used, if depressed without an amount entry within a sale, to display the total of only non-taxable items so far entered. Usually, this non-taxable items total is only displayed; however, it may be programmed to print also.

**\* \* OTHER OPTIONAL KEYS \* \***

**RCPT  
ISSUE**

**RECEIPT POST-ISSUE KEY ([RCPT ISSUE])**

This key is used to issue the receipt of a sale which has already been finalized with the [RECEIPT ON/OFF] switch positioned to OFF (the sale receipt has not been issued accordingly).

To operate, depress the [RCPT ISSUE] key without a numeric entry. The receipt for the last sale is then issued, with only the sale total printed but not details. This key will not function if another sale has already been under way on the register. The receipt post-issue operation is not possible after a Received on Account or Paid Out transactions.

**PR  
OPEN**

**PRESET OPEN KEY ([PR OPEN])**

This key is used to modify the status of preset department keys. When the [PR OPEN] key is depressed prior to depressing a preset department key (either before or after the numeric entry), the preset department key is reversed to non-preset (i.e. open) and allows amount entry through the numeric keyboard.

The [PR OPEN] key cannot be used with [PLU] key.

**OPEN**

**PR-AND-LC OPEN KEY ([OPEN])**

This is a dual-function key that has both [LC OPEN] and [PR OPEN] key functions.

**TXBL  
TL**

**TAXABLE TOTAL KEY ([TXBL TL])**

This key is used to obtain the amount of sale total plus taxes due. The amount will display only but not print. (This key is not necessary to be installed and at the same time the option "[ST] key Displays Taxable Total" is selected.)

In order to allow add-on operations to follow the use of this key, the taxes are not added into any totals until actual finalization is initiated.

## SINGLE-ITEM DEPARTMENT OR PLU ENTRY

The operation patterns in SINGLE-ITEM DEPARTMENT ENTRY, PLU ENTRY, and QUANTITY EXTENSION (described on the previous page) are applied. When a single-item department or PLU is entered, the sale is immediately finalized as a cash payment without operating any media keys.

The following operations are not possible with a single-item department or PLU:

REPEAT ENTRY, [%+], [%-], [DOLL DISC] (DOLLAR Discount), [ITEM CORR] [ST], [TXBL TL], media keys

|AMOUNT| [DEPT]

|AMOUNT| [PLU]

## SPLIT PACKAGE PRICING

|PURCHASED Q'TY|[@/FOR]→|WHOLE PACKAGE Q'TY|[@/FOR]→[PRESET DEPT]→---

|PRUCHASED Q'TY|[@/FOR]→|WHOLE PACKAGE Q'TY|[@/FOR]→

└─|WHOLE PACKAGE PRICE|[OPEN DEPT]→---

**NOTES:** The "PURCHASED Q'TY" and "WHOLE PACKAGE Q'TY" must be of integral value. (max 3 digits)  
; No dicemal value is allowed

## RETURNED MERCHANDISE

Depress [RTN MDSE] before or any time during the following operation patterns (but must be depressed before the last key of the sequence):

DEPARTMENT ENTRY (page 16)  
SINGLE-ITEM DEPARTMENT OR PLU ENTRY (this page)  
PLU ENTRY (page 16)  
QUANTITY EXTENSION (page 16)

## DOLLAR DISCOUNT

--- → |DISCOUNT AMOUNT| → [DOLL DISC] → ---

## NON-ADD NUMBER PRINT

|NUMBER| → [# / NS] → ---

Max. 8 digits

## REGISTERING PROCEDURE FOR SALES

The following are patterns for actual registering operations. In the following examples, "      " indicates an input through the numeric keys, "[ ]" indicates a depression of the transaction key, and "----" indicates other registering and/or finalizing operations.

One of the Clerk keys may be set to its ON position to start operations. The Mode Lock should be set to the "REG" position using the REG key.

### NO-SALE

[#/NS]

### DEPARTMENT ENTRY

|PRICE| → [Open DEPT] → ---

[Preset DEPT] → ---

[PR OPEN] → |PRICE| [Preset DEPT] → ---

NOTE: [LC OPEN] may be depressed either before or after the price entry but must be depressed before the department key.

### PLU ENTRY

|PLU Code| [PLU] → ---  
1 ~ 999

### REPEAT ENTRY (examples to enter three of the same items)

[Preset DEPT] → [Same DEPT] → [Same DEPT] ... → ---

|PRICE| [Open Dept] → [Same DEPT] → [Same DEPT] ... → ---

|Preset PLU Code| [PLU] → [PLU] → [PLU] ... → ---

### QUANTITY EXTENSION (MULTIPLICATION)

|QUANTITY| → [€/FOR] → [PRESET DEPT] → ---

[PR OPEN] → |QUANTITY| → [€/FOR] → |PRICE| [OPEN DEPT] → ---

|QUANTITY| → [€/FOR] → |PRICE| [OPEN DEPT] → ---

|QUANTITY| → [€/FOR] → |Preset PLU Code| [PLU] → ---

NOTES: QUANTITY ... max. 3 integral digits  
PRICE (Unit Price) ... max. 6 digits  
PRODUCT ... must not exceed 7 digits.

## TAX STATUS MODIFICATION (TAXABLE/NON-TAXABLE STATUS REVERSING)

Depress [TX/M] (for tax status reversing in Single-tax Area), or  
[TX1/M] (for Tax 1 status reversing in Dual-tax Area) and/or  
[TX2/M] (for Tax 2 status reversing in Dual-tax Area)

before or any time during the following operation patterns (but must be depressed before the last key of the sequence);

DEPARTMENT ENTRY (page 16)  
PLU ENTRY (page 16)  
QUANTITY EXTENSION (page 16)  
REPEAT ENTRY (page 16)  
SINGLE-ITEM DEPARTMENT OR PLU ENTRY (page 17)  
PERCENT DISCOUNT (page 18)  
DOLLAR DISCOUNT (page 17)  
PERCENT CHARGE (page 18)

## RECEIVED ON ACCOUNT

PAYMENT AMOUNT TO BE RECEIVED [R/A] → AMOUNT TENDERED [AT/TL]  
↑ ↑ [CHK TEND]  
↑ ↑ [Chg]  
May be repeated if multiple items. May be repeated if short-tendered.  
(Must be operated outside a sale.)

## PAID OUT

AMOUNT PAID OUT FORM THE CASH DRAWER [PO] → [AT/TL]  
↑  
May be repeated if multiple items.  
(Must be operated outside a sale.)

## SUB-TOTAL

--- → [ST] → --- ... The sale total so far is displayed and printed, but the sale is not finalized yet.

## TAXABLE TOTAL READ

--- → [TXBL TL] → --- ... The amount of sale total with taxes due so far is displayed only (but not printed).

## MANUAL TAX ENTRY

--- → TAX AMOUNT TO BE ADDED [TAX] → ---

## PERCENT DISCOUNT

(1) To discount from the sub-total:

--- → [ST] → [%-] → --- ... to discount by the preset %- rate

--- → [ST] → [RATE] → [%-] → --- ... to discount by a manual rate  
0.01~99.99

(2) To discount from a Department or PLU item:

--- → [DEPT] ]  
--- → [PLU] ] → [%-] → --- ... to discount by the preset %- rate

--- → [DEPT] ]  
--- → [PLU] ] → [RATE] → [%-] → --- ... to discount by a manual rate  
0.01~99.99

NOTE: Use the [.] key if the rate contains the decimal point.

ex.) To enter 4.5%: operate 4 → [.] → 5

## PERCENT CHARGE

This operates the same as in the PERCENT DISCOUNT operations above, except that the [%+] key is used instead of the [%-] key.

## ITEM CORRECT

Use [ITEM CORR] after each of the sequences listed below.

DEPARTMENT ENTRY (page 16)	→	} → [ITEM CORR] → ---
PLU ENTRY (page 16)	→	
REPEAT ENTRY (page 16)	→	
QUANTITY EXTENSION (page 16)	→	
SPLIT PACKAGE PRICE (page 17)	→	
DOLLAR DISCOUNT (page 17)	→	
PERCENT DISCOUNT (this page)	→	
PERCENT CHARGE (this page)	→	
RECEIVED-ON-ACCOUNT Item: <u>[AMOUNT]</u> [R/A]	→	
PAID-OUT Item: <u>[AMOUNT]</u> [PO]	→	

- NOTES: 1. When [ITEM CORR] is depressed after a QUANTITY EXTENSION sequence, the entire product resulted from the multiplication will be deleted.
2. When [ITEM CORR] is depressed after a REPEAT ENTRY sequence, only the last item of the repeated will be deleted.
3. A department or PLU sequence with TAX STATUS modification may also be deleted by [ITEM CORR], but any sequence modified with [RTN MDSE] can be deleted with [ITEM CORR].



## SPLIT-TENDERING

... Short tendering repeated multiple times by different medias.

--- → ([ST]) → |CHEQUE AMOUNT TENDERED| [CHK TEND] →  
→ (|CASH AMOUNT TENDERED|) [AT/TL] ... Cheque & Cash  
→ [Chg] ..... Cheque & Charge  
→ |CASH AMOUNT TENDERED| [AT/TL] → [Chg] ... Cheque & Cash & Charge  
--- → ([ST]) → |CASH AMOUNT TENDERED| [AT/TL] → [Chg] ... Cash & Charge

- NOTES: 1. In both MULTI-TENDERING and SPLIT-TENDERING operations, the sale is finalized, a receipt is issued, and the drawer opens on reaching the sale total amount.
2. If [Chg] is depressed or [AT/TL] is depressed without an amount tendered entry (if the [AT/TL] functions as the "Total" key), the sale is then finalized on that stage processing all the balance due into that media.

## VALIDATION PRINT

After entering the required item through a transaction key or a media key. → Insert a validation slip into the validation slot. → [VALIDATE]  
Make sure that the "SLP" tri-mark lights up on the display bottom.

- NOTES: 1. No other operations can follow until the validation slip once printed is withdrawn.
2. The following are the selections that can be programmed related to validation:
- (1) PRINT FORMAT WITH or WITHOUT CONSECUTIVE NO.
    - a) MONTH and DAY only, and consecutive No. last 3 digits;
    - or
    - b) MONTH-DAY-YEAR but no Consecutive No.
  - (2) MULTI-VALIDATION or SINGLE-VALIDATION  
(The number of validations available for the same item)

#### NON-TAXABLE ITEM TOTAL READ

---→[TAX]→--- ... The total amount of the non-taxable item(s) so far entered within the sale is displayed. If is usually not printed, but programmable to print also.

#### CASH TOTAL

---→([ST])→[AT/TL] ... The drawer opens, the sale total is displayed and printed, and a receipt is issued.

#### CASH TENDERING

--- → ([ST]) → |TENDERED CASH AMOUNT| [AT/TL] ... The change due is displayed, the drawer opens, and a receipt is issued.

#### CHECK TENDERED

--- → ([ST]) → |TENDERED CHECK AMOUNT| [CHK TEND] ... The same as CASH TENDERING above.

#### CHARGE TOTAL

--- → ([ST]) → [Chg] ... The same as CASH TOTAL above.

#### MULTI-TENDERING

... Short tendering repeated multiple times by cash or cheque.

--- → ([ST]) → |AMOUNT TENDERED| [AT/TL] —  
→ |AMOUNT TENDERED| [AT/TL] —  
→ (|AMOUNT TENDERED|) [AT/TL]

The [AT/TL] may be replaced by the [CHK TEND] key.

DEPARTMENT ENTRY

Thank you  
Call again

02-10-87  
2123456

01 \*123 FE  
02 \*456 FE  
03 \*050 FE  
03 \*050 FE  
03 \*050 FE  
\*043 TX  
\*772 S  
10-0003  
10-47

Taxable Item Symbol

\$1.23 into Dept.1  
\$4.56 into Dept.2  
\$0.50 into Dept.1  
repeated three times.  
Tax due  
Total Paid in Cash

DEPARTMENT QUANTITY EXTENSION,  
ITEM CORRECT ON DEPARTMENT ITEM

Thank you  
Call again

02-10-87  
2123456

12 X  
050 @  
01 \*600 FE  
02--\*400-TE S  
5 X  
120 @  
02--\*600-TE S  
\*060 TX  
\*660 S  
10-0004  
10-48

12 x \$0.50@ = \$6.00  
into Dept.1  
\$4.00 into Dept.2, but  
Item-corrected  
5 x \$1.20@ = \$6.00 into  
Dept.2, but Item-corrected

AMOUNT TENDERING,  
CHANGE COMPUTATION

Thank you  
Call again

02-10-87  
2123456

01 \*130 FE  
02 \*250 FE  
\*026 TX  
\*406 FE  
\*5000  
\*4594 S  
10-0005  
10-51

Tax due  
Sale Total including Tax  
Cash \$50.00 Tendered  
Change due

NON-ADD NUMBER PRINT,  
CHARGE SALE, SUB-TOTAL PRINT

Thank you  
Call again

02-10-87  
2123456

#1234567  
01 \*045 FE  
03 \*123 FE  
03 \*123 FE  
\*291 S  
\*028 TX  
\*319 S  
10-0007  
10-54

Non-add # (ex. Customer No.)  
Sub-total Amount  
Finalized as Charge

# REGISTERING RECEIPT SAMPLES

## NO-SALE

Thank you  
Call again

02-10-87  
2123456

★ 2

12-0019  
10-33

Store Name/Message Stamp

Date

Register No.

Transaction Symbol

Clerk ID / Consecutive No

Current Time

## CHECK CASHING

Thank you  
Call again

02-10-87  
2123456

★200 ₩

12-0020  
10-34

Amount of the check  
Cashed

## RECEIVED ON ACCOUNT

Thank you  
Call again

02-10-87  
2123456

★10.00 R/A  
★2.50 R/A  
★12.50 CA

12-0021  
10-36

Amount 10.00 R/A

Amount 2.50 R/A

Sub-total

## PAID OUT, ITEM CORRECT

Thank you  
Call again

02-10-87  
2123456

★300 ₩  
★200 ₩  
-----★0.15-₩  
★150 ₩  
★650 ₩

12-0022  
10-37

Amount 3.00 Paid Out

Amount 2.00 Paid Out

Amount 0.15 Paid Out,  
but Item-corrected.

Amount 1.50 Paid Out

Paid Out Total

MULTI-TENDERING,  
SPLIT-TENDERING

Thank you  
Call again

02-10-87  
2123456

02 \*450

03 \*250 E

\*013 FX

\*713 AT FL

\*200

\*300

\*213 CH

10-0012

00-00

—Sale Total \$7.13

—Cash-paid Portion \$2.00

—Another Cash-paid Portion \$3.00

—The rest Paid as Charge \$2.13

# RETURNED MERCHANDISE

Thank you  
Call again

02-10-87  
2123456

03 \*0.50 ₣ — \$0.50 returned into Dept.3  
01 \*1.80 ₣ — \$1.80 purchased (Dept.1)  
\*0.16 ₣  
\*1.46 ₣ — Sale Balance  
10-0008  
10-57

# PLU ENTRY

Thank you  
Call again

02-10-87  
2123456

005 \*1.00 ₣ — PLU No.5 \$1.00 repeated twice  
005 \*1.00 ₣  
4 X — 4 x (PLU No.999 \$10.00@) = \$40.00  
1000 @  
999 \*40.00  
\*0.20 ₣  
\*4.220 ₣  
10-0009  
10-59

# PERCENT CHARGE, PERCENT DISCOUNT

Thank you  
Call again

02-10-87  
2123456

01 \*5.00 ₣ — \$5.00 into Dept.1  
10 % + — 10% added to the above item  
\*0.50  
01 \*2.00 ₣  
10.5 % - — 10.5% discount above item  
-0.21  
\*0.70 ₣  
\*7.99 ₣  
10-0010  
11-02

# DOLLAR DISCOUNT, CHECK SALE

Thank you  
Call again

02-10-87  
2123456

01 \*3.50 ₣  
01 \*3.50 ₣  
-0.40 — Dollar Discount of \$0.40  
\*0.70 ₣  
\*7.30 ₣  
\*7.50 ₣ — Check Tendered  
\*0.20 ₣ — Change due  
10-0011  
00-00

## READ(X) AND RESET(Z) REPORTS

The following table shows the key operation to take each report. The "X" and "Z" reports have exactly the same print content if both are available, except that:

1. The "X" report allows to read the totals but not clear memories, while the "Z" report allow to read the totals and at the same time all the resettable memories will be cleared when the report has been issued.
2. The symbol "X" is printed as the header of a "X" report, while "Z" is printed on a "Z" report, to indicate the type of report.
3. A reset count is printed near the bottom of a "Z" report only.

TABLE OF OPERATIONS FOR X AND Z REPORTS

REPORT NAME	KEY OPERATION	SAMPLE PAGE
* AUTO READ * AUTO RESET	Mode Lock : X [AT/TL] Mode Lock : Z	28
* GT READ * GT RESET	Mode Lock : X 20 [AT/TL] Mode Lock : Z	30
ALL PLU READ ALL PLU RESET	Mode Lock : X [PLU] Mode Lock : Z	31
* IN DRAWER READ	Mode Lock : X [#/NS]	31

- NOTES: 1) The cash drawer will open on the depression of the final key of the KEY OPERATION for the reports marked with "\*".
- 2) AUTO READ/RESET reports are for the daily accumulated sales data.
- 3) GT READ/RESET reports are for the accumulated sales data in a week or a month.

# VALIDATION PRINT SAMPLES

(RECEIPT PRINT)

(VALIDATION PRINT)

Thank you  
Call again

02-10-87  
2123456

01	*1.00	TM
02	*2.00	TM
	*3.00	ST
	*0.20	TX
	*3.20	TL
	*3.00	CK
	*1.00	AT
	*0.80	CG

2 \*

10-0003

02-10 003 1 \*1.00 E

02-10 003 \*3.00 E

02-10 003 \*2.00 E

02-10 003 \*1.00 E

02-10 003 \*0.10 E

Date  
(MONTH-DAY)

Amount

Item

The last 3 digits  
of the Consecutive  
No.

If the option "Consecutive No. Non-print on Validation" is selected, the full date form "MONTH-DAY-YEAR" (ex. 02-10-87) will be printed here.

RECEIVED ON ACCOUNT

Thank you  
Call again

02-10-87  
2123456

*1.50	RA
*1.00	RA
*2.50	ST
*2.50	CA

10-0004

02-10 004 #55

02-10 004 \*1.50 E

02-10 004 \*2.50 E

02-10 004 \*2.50 E



## (ORDINARY BALANCE REPORT)

-- Continued --

2	38	—	Charge Sales Customer Count
*532	TL	—	" Sales Amount Total
0	RA	—	Received on Account Count
*000	RA TL	—	" " Total
0	PO	—	Paid Out Count
*000	PO TL	—	" " Total
*7413	CA ID	—	Cash-in-drawer Total
2	CK	—	Check-in-drawer Count
*1250	CK ID	—	" " " Total
2	VD	—	Item Correct Count
*1000	VD	—	" " Total
2			Charge-in-drawer Count and Total (option print)
0	VD	—	Item Correct (on other items) Count
*000	VD	—	" " Total
1	%	—	Percent Discount (on Department) Count
*021	%	—	" " Total
1	RT	—	Returned Merchandise Item Count
*050	RT	—	" " Total
1	CL	—	CLERK 1 SALES DATA: No-sale without TAX (option print)
11	3	—	Total Customer Count
44		—	Total Item Count
*10306	3	—	Gross Sales Total
**		—	HOURLY SALES DATA:
3	3		
*1803	TL		
08-00		—	up to 8:00 (no sales recorded)
09-00		—	8:00 to 9:00 (no sales recorded)
10-00		—	9:00 to 10:00 (no sales recorded)
8	3	—	Customer Count
*7432	TL	—	All Media } 10:00 - 13:00
13-00		—	13:00 to 16:00 (no sales recorded)
16-00		—	16:00 to 18:00 (no sales recorded)
18-00		—	
18-0018		—	In case of Z report, print Reset Count
00-00			

# REPORT PRINT SAMPLES

(ORDINARY BALANCE REPORT)

AUTO READ OR RESET REPORT

Mode Lock : X or Z

Depress [AT/TL]

Thank you  
Call again

02-10-87  
2123456

X	—	Report Type (X for Read, Z for Reset)
*10306 6	—	Grand Total (non-resettable)
44 8	—	Gross Slaes Item Count
*10306 8	—	" " Amount Total
01	—	Dept.1 Slaes Item Count
24	—	" " Amount Total
*2857	—	Dept.2
02	—	Dept.3
4	—	Dept.4
*1356	—	Percent Charge Count
03	—	" " Total
5	—	TAX 1 Amount
*596	—	TAX 2 Amount
04	—	Net Sales with TAX Item Count
4	—	" " Total (= Sum of All Depts.)
*4000	—	Percent Discount (on Subtotal) Count
1 %+	—	" " Total
*050 %+	—	Dollar Discount Count
1	—	" " Total
*174 8	—	Total Customer Count
2	—	All Media Total
*202 8	—	Cash Slaes Customer Count
37 8	—	" Sales Amount Total
*9235 8	—	Check Sales Customer Count
0 %-	—	" Sales Amount Total
*000 %-	—	
1 -	—	
*040 -	—	
11 8 F	—	
*9195 8 F	—	
7 8 8	—	
*7613 8 F	—	
2 8 8	—	
*1050 8 F	—	

-- Continued --

ALL PLU READ OR RESET REPORT

Mode Lock: X or Z  
Depress [PLU].

Thank you  
Call again

02-10-87  
2123456

X

005.2

2

\*200

999.2

4

\*4000

12-0020

00-00

Report Type (X for Read, Z for Reset)

PLU No.

Sales Item Count

Sales Amount Total

IN DRAWER READ REPORT

Mode Lock: X  
Depress [# / NS].

Thank you  
Call again

02-10-87  
2123456

X

\*7413 50

\*1250 50

12-0021

00-00

Cash-in-drawer Amount Total

Check-in-drawer Amount Total

(ORDINARY BALANCE REPORT)

GT READ OR RESET REPORT

Mode Lock: X or Z

Depress 20 [AT/TL]

Thank you  
Call again

02-10-87  
2123456

Z20

\*10306 5  
44 8

\*10306 8

01

.24

\*2857

02

4

\*1356

03

5

\*596

04

4

\*4000

1 %+

\*050 %+

1

\*174 x

2

\*202 x

37 2

\*9235 2

0 %-

\*000 %-

1 -

Report Type (Z20 for GT Reset; X20 for GT Read)

\*050 E

10\*\*

11 2

44

\*10306 8

0001Z

10-0022

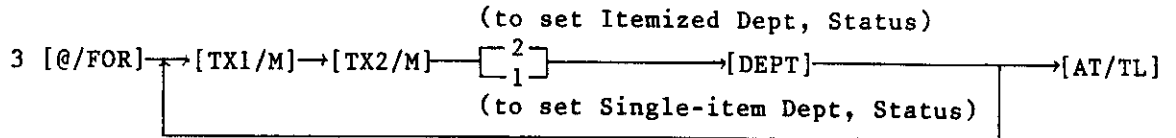
00-00

GT Reset Count

## DEPARTMENT TAX STATUS SETTING

CONDITION : After Auto Reset and GT Reset

OPERATION : Mode Lock: SET



- NOTE:**
1. After RAM clear, the department will be automatically programmed as Itemized Department.
  2. Each department results in an error if its memory is not opened.
  3. When 0 is entered, followed by [DEPT] key, all the status will be reset. Even if the status is reset, the listing capacity and preset price of the department will not be reset.
  4. When the [TX1/M] or [TX2/M] key is pressed, the status of the department will be inverted. That is, when the Tax Modifier key is pressed, the status will change from non-taxable DEPT to taxable, or taxable to non-taxable.

Each department status is read by the number indicated in the AMOUNT portion of the display when each department key is depressed in the above operation.

The numbers and their respective statuses are:

- 0: Non-taxable
- 1: Only Tax 1 taxable
- 2: Only Tax 2 taxable
- 3: Tax 1 and Tax 2 both taxable

Watching the number, adjust the status by depressing these keys.  
See the examples below:

STATUS NUMBER BEFORE CHANGE	KEY-IN FOR CHANGE PRIOR TO [DEPT] KEY	NEW NUMBER AND STATUS OBTAINED
0	→ [TX1/M]	→ 1(Tax1 only)
0	→ [TX1/M] [TX2/M]	→ 3(Tax1 & Tax2)
0	→ [TX2/M]	→ 2(Tax2 only)
1	→ [TX1/M]	→ 0(Non-taxable)
1	→ [TX2/M]	→ 3(Tax1 & Tax2)
1	→ [TX1/M] [TX2/M]	→ 2(Tax2 only)
2	→ [TX1/M]	→ 3(Tax1 & Tax2)
2	→ [TX2/M]	→ 0(Non-taxable)
2	→ [TX1/M] [TX2/M]	→ 1(Tax1 only)
3	→ [TX1/M]	→ 2(Tax2 only)
3	→ [TX2/M]	→ 1(Tax1 only)
3	→ [TX1/M] [TX2/M]	→ 0(Non-taxable)

## PROGRAMMING OF THE REGISTER

In this chapter, various programming operations are described. Please follow the directions of each operation when any data must be changed or newly set.

### TABLE OF PROGRAMMING OPERATIONS

	(CONDITION)	(MODE/PROG. NO.)	(PAGE)
DEPARTMENT TAX STATUS SETTING .....	AZ, GTZ ...	SET/ 3 .....	33
DEPARTMENT LC SETTING .....	AZ .....	SET/ 8 .....	35
DEPARTMENT UNIT PRICE SETTING .....	Anytime ...	SET .....	36
OR CHANGING			
PLU TABLE PROGRAMMING AND .....	Anytime; ..	SET/ 4 .....	37
PLU TABLE DELETION	or PLUZ		
PLU PRESET PRICE CHANGE .....	Anytime ...	SET .....	38
TAX TABLE PROGRAMMING.....	AZ .....	SET .....	39
NON-TAXABLE AMOUNT LIMIT SETTING .....	AZ .....	SET/ 9 .....	41
DATE SETTING .....	Anytime ..	SET/ 6 .....	42
TIME SETTING .....	Anytime ..	SET/ 5 .....	43
HOURLY RANGE SETTING .....	AZ .....	SET/ 7 .....	44
%, %- PRESET RATE SETTING .....	Anytime ..	SET .....	44
REGISTER NO. SETTING .....	AZ .....	SET .....	45
-----			

### **VERIFICATION OF PROGRAMMED DATA**

DEPARTMENT STATUS AND LISTING .....	45
CAPACITY & % RATE READ	
DEPARTMENT PRESET PRICE READ .....	45
PLU TABLE READ .....	46
TAX CALCULATION TEST .....	46

**NOTE:** Anytime = Any time outside a sale

AZ = After Auto Reset

GTZ = After GT Reset

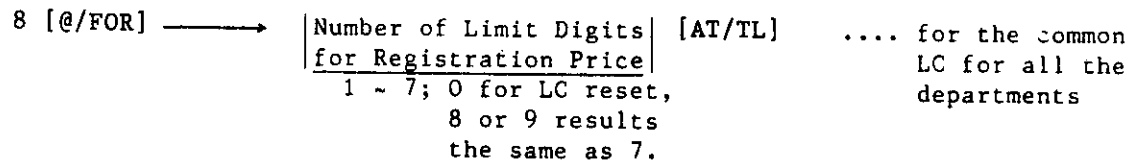
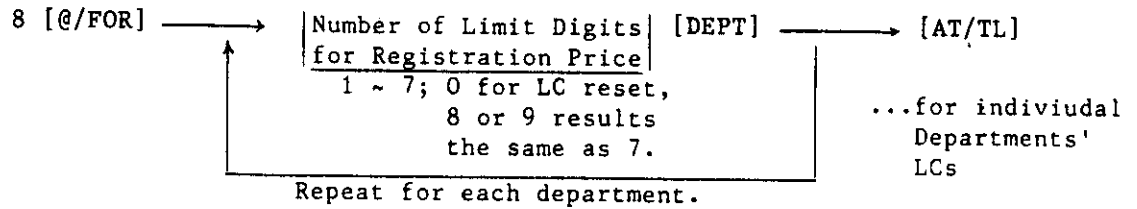
PLUZ = After PLU Reset

## DEPARTMENT LC SETTING

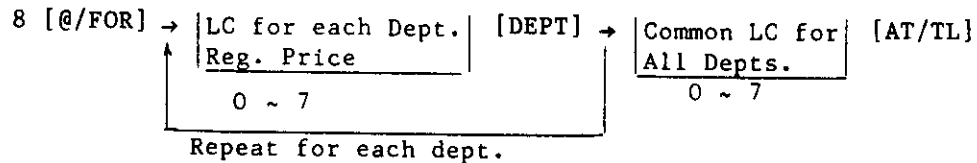
The listing capacity (LC) for each department and the common LC for all departments can be set in this operation. If the LC for an individual department is once set, that LC prevails over the common LC. The common LC becomes effective for entries through a department which has not been set with its individual LC.

CONDITION: After Auto Reset

OPERATION: Mode Lock: SET



The above two operations may be combined as follows:



### SAMPLE OPERATION:

To set the following LCs:

Dept. 1: 3 digits  
Dept. 2: 4 digits  
Dept. 3: 7 digits  
Dept. 4: LC reset, and follows  
the common LC  
Common LC: 6 digits

Mode Lock: SET

Enter 8 depress [ @/FOR ].  
Enter 3, depress [ DP 1 ].  
Enter 4, depress [ DP 2 ].  
Enter 7, depress [ DP 3 ].  
Enter 0, depress [ DP 4 ].  
Enter 6, depress [ AT/TL ].

Thank you  
Call again

02-10-87  
2123456

#-08

01	3
02	4
03	7
04	0
	6

03-0010  
10-12

# SAMPLE OPERATION

To set the following department status:

Mode Lock: SET, enter 3, depress [ @/FOR ].

Depress [TX1/M] [TX2/M], [DEPT 1]. (3 is indicated in the AMOUNT display.)

Depress [TX2/M], [DEPT 2]. (2 is indicated in the AMOUNT display.)

Depress [TX1/M], [DEPT 3]. (1 is indicated in the AMOUNT display.)

Depress 1, [DEPT 4]. (0 is indicated in the AMOUNT display.)

Thank you  
Call again

02-10-87  
2123456

#-03

01 3

02 2

03 1

04 \*0

05-0009

10-08

\* is indicated Single-item Dept.

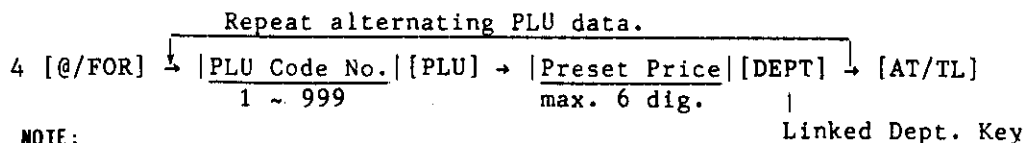


## PLU TABLE PROGRAMMING

A maximum of 100 PLUs can be set. Each PLU is programmed with its PLU Code No. (1 to 999), preset price (max. 6 digits), and its linking Department No. (1 to 5).

CONDITION: After PLU Reset for changing data with the old PLU Codes, or any time outside a sale for additional PLU setting.

OPERATION: Mode Lock: SET



**NOTE:**

If a PLU is linked to a Single-item Department, the PLU also functions as Single-item PLU.

### SAMPLE OPERATION:

To set the following PLUs:

PLU Code No.	Preset Price	Link Dept.
5	1.00	DP 1
10	2.00	DP 2
11	123.00	DP 3
999	10.00	DP 4

Mode Lock: SET

Enter 4, depress [ @/FOR ].

Enter 5, depress [PLU],  
enter 100, depress [DEPT 1].

Enter 10, depress [PLU],  
enter 200, depress [DEPT 2].

Enter 11, depress [PLU],  
enter 12300, depress [DEPT 3].

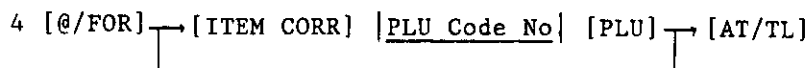
Enter 999, depress [PLU],  
enter 1000, depress [DEPT 4].

Depress [AT/TL] to end.

### PLU TABLE DELETION

CONDITION: After PLU Reset

OPERATION: Mode Lock: SET



Thank you  
Call again

02-10-87  
2123456

#-04  
00501  
\*100 @  
01002  
\*200 @  
01103  
\*12300 @  
99904  
\*1000 @  
00-0013  
10-19

---

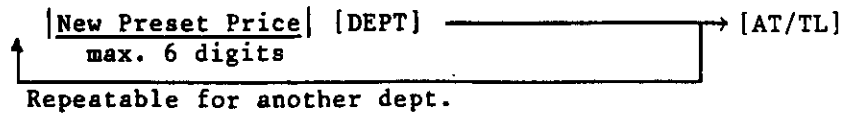
#-04  
0100  
----- S  
00-0014  
10-21

Print Sample when  
PLU No.10 is deleted.

## DEPARTMENT UNIT PRICE SETTING OR CHANGING

CONDITION: Any time outside a sale

OPERATION: Mode Lock: SET



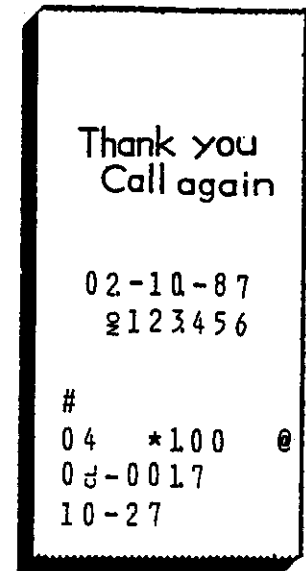
- NOTES: 1. To preset the price of "0", enter "0" in place of the price entry in the above operation.  
2. If no price is entered in the above operation, the department is set as an open department.

### SAMPLE OPERATION

To set \$1.00 to Department 4:

Mode Lock: SET

Enter 100, depress [DEPT 4].  
Depress [AT/TL] to end.



## **TAX TABLE PROGRAMMING**

The MA-215 model can calculate tax using one of three methods of tax calculation, which can be set in the programmable memory. The three methods are:

1. FULL-BREAK METHOD (COMBINATION OF NON-CYCLIC BREAKS AND CYCLIC BREAKS)  
(Maximum 64 breaks programmable for Tax 1 and Tax 2 tables altogether)
2. COMBINATION OF NON-CYCLIC BREAKS AND % RATE  
(Maximum 64 breaks programmable for Tax 1 and Tax 2 tables altogether)
3. % RATE ONLY

CONDITION: After Auto Reset

OPERATION: Mode Lock: SET

Select one of the following three methods to meet your tax status. Use [TX1/M] for Tax 1 Table and [TX2/M] for Tax 2 Table respectively in a dual-tax area, in place of [TX/M] in the following descriptions for the single tax table setting operations.

### 1. FULL-BREAK METHOD

#### Non-cyclic Breaks

- 1) Enter the first break point of price that is the non-taxable limit, and depress [TX/M].
- 2) Enter the next break point of price that is the limit to collect the tax amount 1¢, and depress [TX/M].
- 3) Repeat Step 2) above, with alternating each limit price for collecting tax amount of 2¢, 3¢, 4¢ ... until the non-cyclic breaks are all entered.
- 4) Depress [ST] to end the non-cyclic break entries.

#### Cyclic Breaks

- 1) Do the same operation as in Step 1) above, entering each limit price for each tax amount that increases by 1¢, followed by the [TX/M] key. Enter the last price so that the difference between the last non-cyclic break price already entered and the last cyclic one will be a multiple of one dollar (\$9.00 maximum). Otherwise, the tax calculation will not function.
- 2) Depress [AT/TL] to end the cyclic break entries as well as the entire tax program.

### 2. COMBINATION OF NON-CYCLIC BREAKS AND % RATE

#### Non-cyclic Breaks

- 1) Do the same operation stated above in 1 from Steps 1) through 4) of Non-cyclic Breaks.

#### % Rate

- 1) Enter the tax percentage rate applied to amounts above the non-cyclic breaks. (The rate may be entered in 0.00 to 99.9999. For example, to set 4%, enter 4).

- 2) Depress [AT/TL] to end the percentage rate entry as well as the entire tax program.

### 3. % RATE ONLY

- 1) Enter "0", depress [TX/M], and depress [ST].  
2) Enter the percentage rate in the same manner as in 2 - Step 1) above. Then depress [AT/TL] to end the entire tax program.

- NOTES:** 1. A maximum of 4 digit value is entered for each break.  
2. If any incorrect value is found to have been entered, first complete the entire tax table program (up to the [AT/TL] key operation), and do the correct tax table program operation over again from the first.  
3. In a dual-tax area, program Tax 1 Table first, and then Tax 2 Table. When Tax 1 Table is programmed, Tax 2 Table (if any pre-programmed) will automatically be reset.

**SAMPLE OPERATION:** To program the following tax table:  
(in a single-tax area)

#### 1. FULL-BREAK METHOD

<u>Tax Table</u>			<u>Key Operation</u>	
			Mode Lock: SET	
Non-cyclic Breaks				
(from)	(to)	(tax)	(Enter)	(Depress)
0¢	15¢	0¢	15	[TX/M]
16	25	1	25	[TX/M]
[ST]				
Cyclic Breaks				
26	45	2	45	[TX/M]
46	65	3	65	[TX/M]
66	85	4	85	[TX/M]
86	105	5	105	[TX/M]
106	125	6	125	[TX/M]
[AT/TL]				

#### 2. COMBINATION OF NON-SYCLIC BRAKES AND % RATE

Non-cyclic Breaks				
0¢	19¢	0¢	19	[TX/M]
20	39	1	39	[TX/M]
40	59	2	59	[TX/M]
60	79	3	79	[TX/M]
80	99	4	99	[TX/M]
				[ST]
5% applied to any amount above Non-cyclic Breaks			500	[AT/TL]

Thank you  
Call again

02-10-87  
2123456

#1  
00 \*0.15 E  
01 \*0.25 E  
\*0.25 S  
02 \*0.45 E  
03 \*0.65 E  
04 \*0.85 E  
05 \*1.05 E  
06 \*1.25 E  
\*1.25 F  
00-0011  
10-15

#2  
00 \*0.19 E  
01 \*0.39 E  
02 \*0.59 E  
03 \*0.79 E  
04 \*0.99 E  
\*0.99 S  
5 %  
10-0002  
10-45

10% applied to any amount

#1  
00 \*0.00 M  
\*0.00 S  
10 %  
0021  
11-20

CONDITION: After Auto Reset; this program is applicable only to certain areas.

OPERATION: Mode Lock: SET

NOTES: 1. To reset the limit amount once set, enter "0" in place of the Limit Amount in the above operation.

## SAMPLE OPERATION

Mode Lock to SET.

Enter 9 depress [ @/FOR ].

Thank you  
Call again

02-10-87  
2123456

#-0.9  
\*20.00  
13-0026

## DATE SETTING

A standard calendar (up to the year of 2099) and TIME-OF-DAY (TOD) clock circuit is installed in MA-215 model. Therefore, once the date and the time is set, seldom is adjustment necessary. Neither is a leap year adjustment necessary up to the year of 2099.

CONDITION: Any time outside a sale

OPERATION: Mode Lock: SET, (If the date set order option "MONTH-DAY-YEAR" is selected).

6 [ @/FOR ] → | MONTH | DAY | YEAR | → [ AT/TL ]  
                  1 to 12 |                   01 to 31 |  
   87, 88, etc.

The entry order may be DAY-MONTH-YEAR or YEAR-MONTH-DAY instead of MONTH-DAY-YEAR if so determined the data set order.

### SAMPLE OPERATION:

To set the date "February 10th, 1987"

Mode Lock: SET,  
Enter 0 2 1 0 8 7, depress [AT/TL].

Thank you  
Call again

00-00-00  
2123456

#-06  
02-10-87  
02-0004  
00-11

## TIME SETTING

CONDITION: Any time outside a sale

OPERATION: Mode Lock: SET

5 [ @/FOR ] → | HOUR | MINUTE | → [ AT/TL ]  
                  0 to 24 |                   00 to 59

### SAMPLE OPERATION:

To set the time "10:00 a.m.":  
Mode Lock: SET  
Enter 1000, depress [AT/TL].

Thank you  
Call again

02-10-87  
2123456

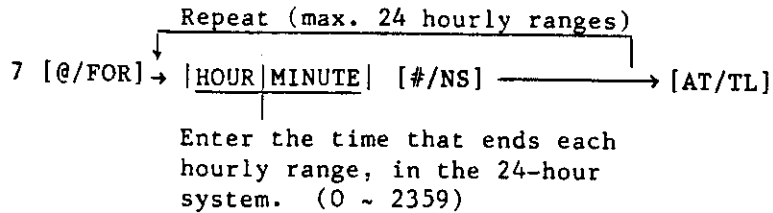
#-05  
10-00  
02-0005  
10-00

## HOURLY RANGE SETTING

A maximum of 24 hourly ranges may be set. By setting hourly ranges, the sales data are processed into each hourly range memory which will be read on Auto X and Z reports.

CONDITION: After Auto Reset

OPERATION: Mode Lock: SET



- NOTES:**
1. To change the hourly range table once set, partially or entirely, do the entire setting operation over again.
  2. To reset the hourly range table and not to provide any hourly ranges, operate in the "SET" mode:  
7 [ @/FOR ] → 0 [ #/NS ] → [ AT/TL ]
  3. Do not set an hourly range accross 24:00, such as "from 23:00 to 1:00". If ever set, no data will be processed into that hourly range.

### SAMPLE OPERATION:

To set the following hourly range table:

<u>Table</u>	<u>Key Operation</u>
	Mode Lock: SET
	Enter 7, depress [ @/FOR ].
up to 8:00	Enter 800, depress [ #/NS ].
8:00 ~ 9:00	Enter 900, depress [ #/NS ].
9:00 ~ 10:00	Enter 1000, depress [ #/NS ].
10:00 ~ 13:00	Enter 1300, depress [ #/NS ].
13:00 ~ 16:00	Enter 1600, depress [ #/NS ].
16:00 ~ 18:00	Enter 1800, depress [ #/NS ].
	Depress [ AT/TL ] to end.

Thank you  
Call again

02-10-87  
2123456

#-07  
08-00  
09-00  
10-00  
13-00  
16-00  
18-00  
08-0008  
10-01

## %+, %- PRESET RATE SETTING

Each of the [%+] and [%-] keys can be set with a preset rate independent from the other. Once a rate is preset, a simple depression of the % key will function with the rate in the REG mode. If a manual rate is entered before the % key, it will function with the manual rate instead. If 0% is preset, the % key will always require a manual rate entry.

CONDITION: Any time outside a sale

OPERATION: Mode Lock: SET

|%+ Preset Rate| → [%+]

|%- Preset Rate| → [%-]

0 ~ 99.99

(Use the [.] key  
if a decimal point  
is contained.)

### SAMPLE OPERATIONS:

To set 10% for %+ Preset Rate,  
10.5% for %- Preset Rate:

Mode Lock: SET

Enter 10, depress [%+].

Enter 10, depress [.] , enter 5,  
depress [%-].

## REGISTER NO. SETTING

A maximum of 6-digit number may be set as Register No.

CONDITION: After Auto Reset

OPERATION: Mode Lock: SET

|Register No.| → [# / NS]

0 ~ 999999

### SAMPLE OPERATION:

To set Register No. of "123456":

Mode Lock: SET

Enter 123456, depress [# / NS].

Thank you  
Call again

02-10-87

2123456

#10                    %+

00-00006

10-00

Thank you  
Call again

02-10-87

2123456

#10.5                    %-

00-00007

10-01

Thank you  
Call again

00-00-00

20

2123456

00-00003

00-10



# VERIFICATION OF PROGRAMMED DATA

## DEPARTMENT STATUS AND LISTING CAPACITY & % RATE READ

Mode Lock: X

Enter 1, depress [ST].

Thank you  
Call again

02-10-87  
2123456

Department No. →

01	★3	3
02	2	4
03	1	7
04	0	0

10      %+

10.5      %÷

Clerk ID → 04-0012

10-18

Store Name/Message Stamp

Date

Register No.

Single Item Department Status

Read Mode Symbol

Individual Department Listing Capacity (Number of Limit Digits)

Individual Tax Status  
0: Non-Taxable 1: Tax1 Taxable  
2: Tax2 Taxable 3: Tax1&2 Taxable

Common LC for All Departments

%+ Preset Rate 10%

%÷ Preset rate 10.5%

Consecutive No.

Current Time

## DEPARTMENT PRESET PRICE READ

Mode Lock: X

Enter 2, depress [ST].

Thank you  
Call again

02-10-87  
2123456

X

01		@
02		@
03		@
04	★1.00	@

04-0018

10-30

Blank indicates that the department is an open dept.

1.00 Dept 4.

# PLU TABLE READ

Mode Lock: X

Enter 3, depress [ST].

PLU Code No.

Thank you  
Call again

02-10-87  
2123456

005 01

\*100

011 03

\*12345

999 04

\*1000

03-0016

10-25

Link Department No.

Preset Price

## TAX CALCULATION TEST

Mode Lock: X

| AMOUNT TO TEST | —————> [TXBL TL]  
( [TX1/M] )

Repeat this operation, alternating the amount, until the tax table is found to be corrected.

# PAPER ROLL REPLACEMENT AND OTHER MAINTENANCE OPERATIONS

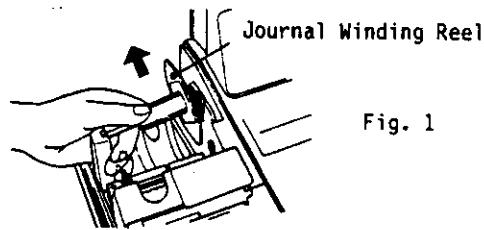


Fig. 1

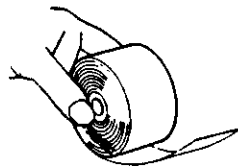


Fig. 2

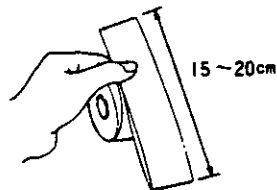


Fig. 3

## INSTALLING THE RECEIPT PAPER

1. Turn the Mode Lock to the "REG" position.
2. Remove the Paper Cover, and remove the Journal Winding Reel. (Fig. 1)
3. Hold a new paper in the direction as shown in Fig. 2 so that the paper end will be fed from the bottom.
4. Fold the paper end firmly as shown in Fig. 3 to ease the insertion.
5. Place the paper roll in the outer-side holder of the two roll holders. (Fig. 4)
6. Insert the paper end into the Receipt Inlet, feed the paper in while pressing down the [RF] key. (Fig. 5)
7. When all the folded portion comes out, tear off the unnecessary part with the attached cutting edge. (Fig. 6)
8. Go on to INSTALLING THE JOURNAL PAPER steps if necessary, or go on to Step 9 below if not.
9. Attach the Paper Cover.
10. Depress the [NS] key to issue a receipt to check if the paper has properly been set.

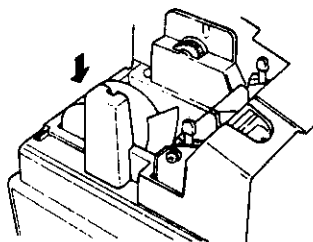


Fig. 4

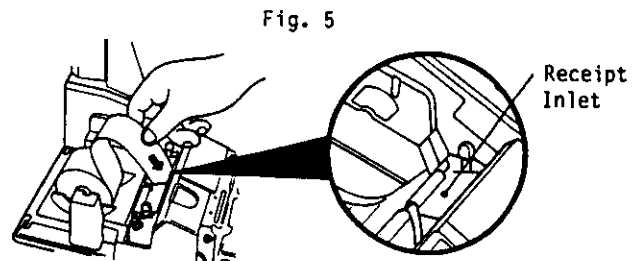


Fig. 5

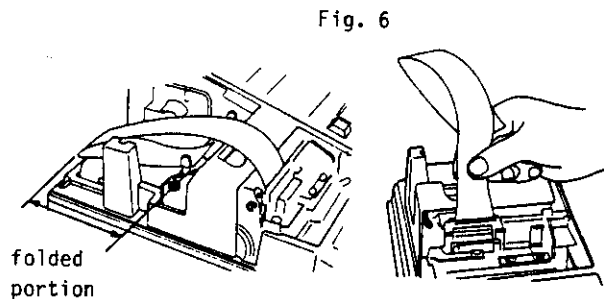


Fig. 6

Cut the paper with the edge.

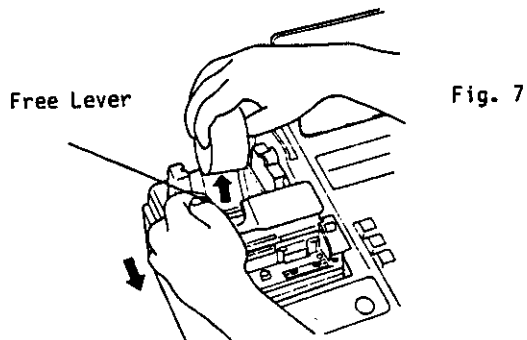


Fig. 7

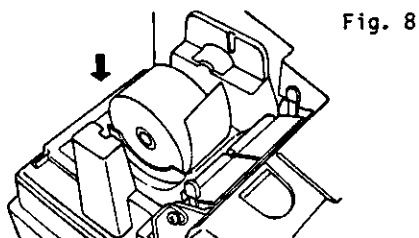


Fig. 8

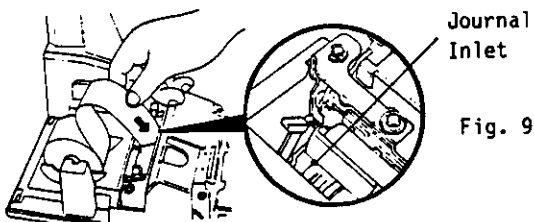


Fig. 9

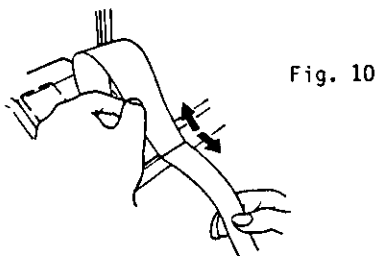


Fig. 10



Fig. 11

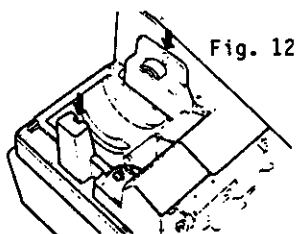


Fig. 12



Fig. 13

## REMOVING THE RECEIPT PAPER

1. Remove the Paper Cover.
2. Press the Free Lever down and pull the old paper core upward to remove the remaining paper end. (Fig.7)

## INSTALLING THE JOURNAL PAPER

1. Turn the Mode Lock to the "REG" position.
2. Remove the Paper Cover by pulling it upward, and remove the Journal Winding Reel. (Fig.1)
3. Follow Steps 3 and 4 of INSTALLING THE RECEIPT PAPER on the previous page.
4. Place the paper roll in the inner-side roll holder of the two holders. (Fig.8)
5. Insert the paper end into the Journal Inlet, feed the paper in while pressing down the [JF] key. (Fig.9)
6. When the paper comes out for a enough length, open the folded end. (Fig.10)
7. Wind the paper end on the Journal Winding Reel two or three times as shown in Fig.11.
8. Set the Journal Winding Reel to the Reel Holder. (Fig.12)
9. Attach the paper cover.

## REMOVING THE JOURNAL PAPER

1. Remove the Paper Cover.
2. Press the [JF] key to wind up enough portion of the journal paper, and then tear off the paper, holding the Journal Winding Reel.
3. The wound-up portion of the paper can easily be removed from the Reel by pulling it side way. (Fig.13)
4. If enough paper remains on the roll, follow Steps 6 through 9 above; if paper is running out, follow Steps 1 through 9 above.

Paper Cover

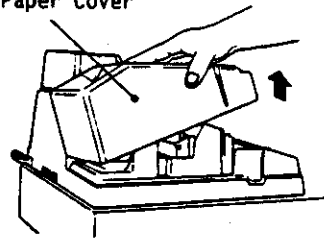
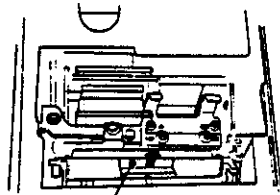


Fig. 1



Ink Roll Knob

Fig. 2

Ink Roll Holder

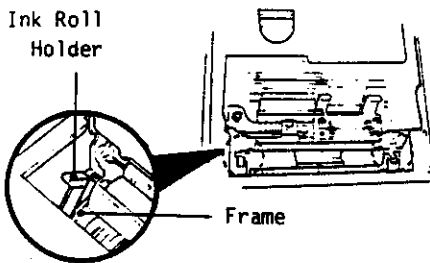


Fig. 3

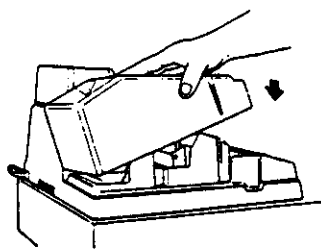
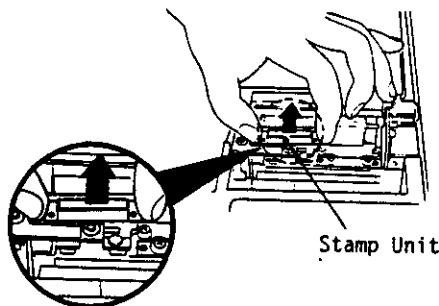


Fig. 4



Ink Roll

Fig. 5



Stamp Unit

Fig. 6

Ink Bottle

Stamp Pad



Fig. 7

## REPLACING THE INK ROLL

When the receipt and journal print becomes too light to read, replace the Ink Roll in the following manner.

1. Turn the Mode Lock to the "OFF" position.
2. Remove the Paper Cover. (Fig.1)
3. Hold the Ink Roll Knob and pull it upward. The Ink Roll will be removed. (Fig.2)
4. Insert a new Ink Roll into the space between the Ink Roll Holder and the Frame. (Fig.3)
5. When replacement is completed, attach the Paper Cover (Fig.4) and turn the Mode Lock to the "REG" position.

\* The Ink Roll is a consumable product and a genuine part supplied by TEC. Ask your TEC representative for an additional order. (Fig.5)

## REPLENISHING INK TO THE STORE MESSAGE STAMP

When the store message is printed too lightly, replenish ink in the following manner.

1. Turn the Mode Lock to the "OFF" position.
2. Open the Paper Cover. (Fig. 1)
3. Hold the both sides of the stamp unit with your fingers and remove it by pulling it upward. (Fig.6)
4. Apply ink to the replenishment pad at the back of the stamp unit. The amount of refilling should be adjusted according to the density of the printed message. (The supplied ink bottle contains 5cc of ink.) (Fig.7)
5. When replenishing of ink is completed, attach the Paper Cover (Fig.4) and turn the Mode Lock to the "REG" position.

## MANUAL DRAWER RELEASING

The drawer opens automatically when a registration is performed. In the event of a power failure or other troubles, the drawer can be opened manually in the following manner.

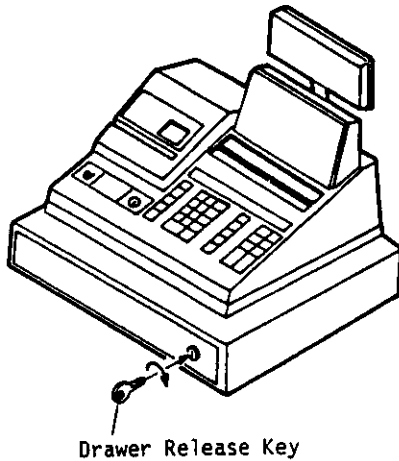


Fig. 1

1. Insert the Drawer Release Key into the Drawer Release Lock and turn the key clockwise. The drawer will now open. (Fig.1)
2. The Drawer Release Key can be taken out by returning it to the original position.
3. When the drawer is closed, it is automatically locked and will not open without the Drawer Release Key or normal registering operation.

## REMOVING THE DRAWER

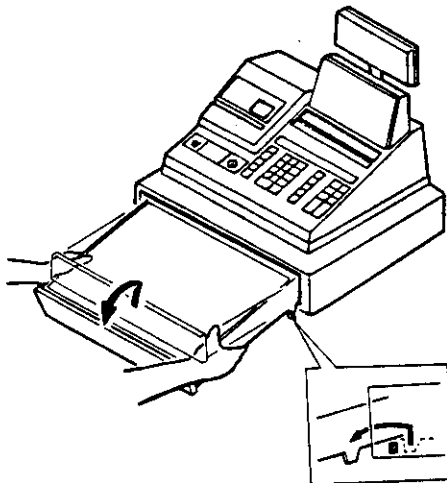


Fig. 2

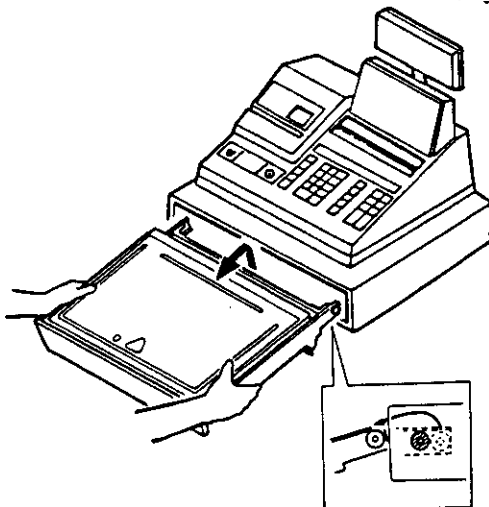


Fig. 3

1. Pull the drawer out, and when it stops by the stopper, lift the drawer up and pull it again (Fig.2). When it stops again by the roller fixed in the drawer case, lift it and pull it again (Fig.3).
2. When returning to drawer, follow the reverse procedure to removing.

## CDC (Cash Drawer Cover) LOCK

### Locking (Fig.4)

1. Push the Cash Drawer Cover to the drawer-end.
2. Press the cover lightly, insert the key into the key-hole on the cover, and turn it to lock.

### Opening

Release the lock by the key, and lift the front end of the cover.

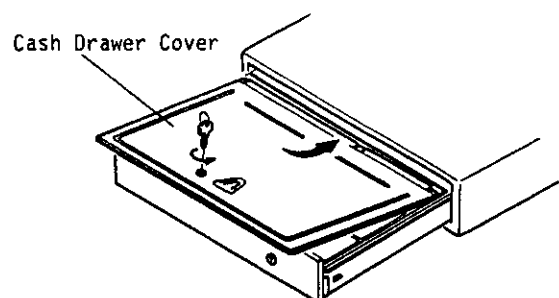


Fig. 4

## SPECIFICATIONS

SIZE ..... 400mm(width) x 460mm(depth) x 381mm(height)

WEIGHT ..... 14.5kg

POWER REQUIRED ..... AC 100V, 110V, 117V, 220V, 240V; 50/60Hz  
(depending on the destination)

POWER CONSUMED ..... 0.25A

SIZE OF RECEIPT AND JOURNAL TAPE  
..... 38mm(width) x 70mm(diameter)

AMBIENT TEMPERATURE ..... 0°C to 40°C, 15% to 90% Relative Humidity

